



## Mike Mayo

mike.mayo@cls.com  
(1) 212 261 4000

## Chris Spahr

(1) 212 261 4005

22 February 2012

## USA

### Financial services

Reuters JPM.N  
Bloomberg JPM US

#### Priced on 21 February 2012

S&P 500 @ 1,361.2

12M hi/lo US\$47.80/27.85

12M price target US\$43.00

±% potential +12%

Target set on 4 Feb 12

Shares in issue 3,942.0m

Free float (est.) 99.4%

Market cap US\$146,139m

#### 3M average daily volume

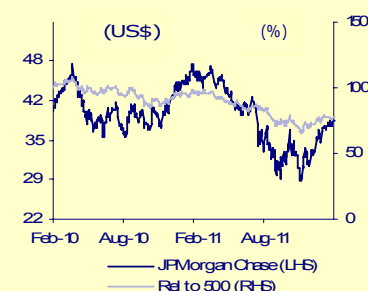
US\$350.7m

#### Major shareholders

BlackRock Global Investors 4.2%

### Stock performance (%)

	1M	3M	12M
Absolute	2.9	28.6	(19.9)
Relative	(1.1)	14.8	(20.9)



Source: Bloomberg

[www.cls.com](http://www.cls.com)

## 2012 Conference preview

JPMorgan Chase remains best-in-breed among global banks (strategic consistency, market-share gains, risk management) but this has not led to best-in-class in its six business lines. Also, this breed faces pressure from slower growth and regulation. For the eight years since JPMorgan Chase was formed in 2004, the share price is only flat, which is better than down 50% each for the bank index, financial index and seven other global banks, but still behind the S&P 500 (up 20%). In getting ready for Tuesday's investor day, this report highlights 10 issues about JPMorgan.

### Best-in-breed does not mean best-in-class

Since 2004, JPMorgan has well outperformed other global banks (Citigroup, Bank America, Deutsche Bank, Credit Suisse, UBS, Barclays, HSBC) but its flat stock price and performance does not compare as well to best-in-class players in asset management (T Rowe Price and Blackrock up 2-3x), cards (American Express up 20%), Goldman Sachs (up 20% – better Asia/non-US), retail (Wells Fargo up modestly), or a proxy of players such as these (underperformed by 20% since 2004, though flat since 2007). In addition, key-man risk with the CEO needs to be monitored.

### Revenue is an issue

First, the environment is one of Japan-lite (see our prior reports), ongoing in the USA and perhaps more in Europe, so why is JPMorgan expanding in both so aggressively? The US branch expansion looks like a last-century approach. The question is whether JPM should slow its investment spending. Second, how can JPM be so confident that housing is bottoming given the degree of government intervention that jerry-rigs the market? Third, new regulation hurts derivatives (est: \$1bn) and other areas in undefined amounts.

### Investors looking for the goods

Eight years is a long time to wait for a higher share price when the five top executives at JPM from 2004-2010 received over \$600m in compensation (2x the average for the top 20 banks). Top management deserves praise for outperforming peers so well, but at the same time investors have underperformed due to a deliberately calibrated business model. Perhaps the processing business should be sold? Maybe there are some branches to get divested in less attractive areas? Does JPM need to be this big? Each year at investor day, the company reiterates the benefits of such a broad scope and strategy. We wonder if the reference group should go further beyond the lumbering global competitors. In short, if JPM is best-of-breed and it still underperforms, perhaps the breed is not so good or the company needs to better explain the synergies whose benefits are missing from the share price.

### Financials

Year to 31 Dec	10A	11CL	12CL	13CL	14CL
Operating income (US\$m)	104,842	99,767	96,002	100,585	105,041
Net income (US\$m)	15,768	17,584	17,160	18,565	19,171
EPS (US\$)	3.96	4.49	4.55	5.00	5.25
CL/consensus (31) (EPS%)	-	100	99	93	91
EPS growth (% YoY)	76.7	13.1	1.4	9.9	5.1
PE (x)	9.7	8.6	8.5	7.7	7.3
Dividend yield (%)	0.5	2.6	3.4	3.9	4.7
PB (x)	0.9	0.8	0.8	0.7	0.7
ROE (%)	10.4	10.8	9.9	10.2	10.0

Source: Credit Agricole Securities (USA); FactSet for consensus data. CL = estimate

**CLSA HAS MOVED TO A NEW RECOMMENDATION STRUCTURE AS OF 1 JAN 2012. PLEASE SEE IMPORTANT DISCLOSURES AT THE END OF THIS REPORT.**

The group of companies that comprise CLSA are affiliates of Credit Agricole Securities (USA) Inc.

**For important disclosure information please refer to page 12.**



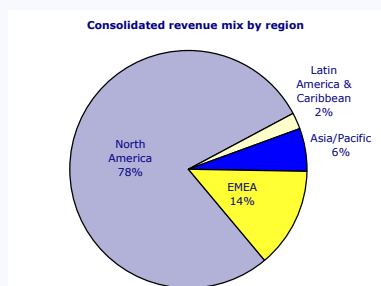
Asia accounts for 6% of JPMorgan Chase's consolidated revenue

## AsiaXposia™

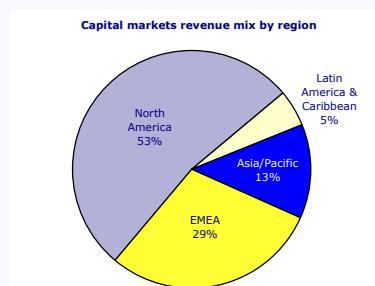


- JPMorgan Chase has global wholesale banking operations in Asia, led by investment banking, processing and asset management
- During 2011, Asia/Pacific-based activities accounted for about \$6 billion in revenue (6% of total), about half of which was investment banking.
- Asia expansion is a priority; the company is adding local processing offices to serve multinationals, improving asset management distribution and expanding its global corporation banking franchise.

### Consolidated revenue mix by region



### Capital-markets revenue mix by region



Note: consolidated revenue mix is FY2010; capital-markets-related revenue mix is FY2011. Source: company

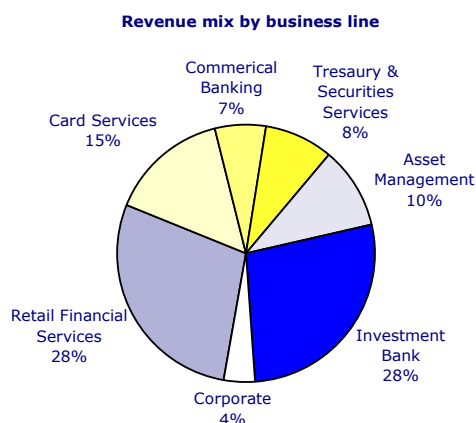
JPMorgan Chase operates in 60 countries

It has top-tier scale in each of its six business lines

## JPMorgan Chase franchise

- JPMorgan Chase is one of the largest financial services company with \$2.3 trillion in assets, operating in 60 countries with over 240,000 employees.
- JPMorgan is roughly half consumer (retail, mortgage, cards and middle market; predominantly in the USA) and half wholesale banking (global franchises in investment banking, processing and asset management).
- The company is the top-ranked investment bank (in terms of revenue), number-three retail bank (deposits), number two in mortgage (originations), number one in cards (receivables), number two in processing (assets under custody) and number five globally in asset management (global AUM).

### JPMorgan Chase revenue mix



Note: based on projected 2012 revenue. Source: Credit Agricole Securities (USA)

## 10 issues face JPMorgan

JPMorgan may have to put on more risk to grow above-trend revenue

One-third of JPMorgan's capital-markets-related revenue comes from European-based activities

## Ten issues

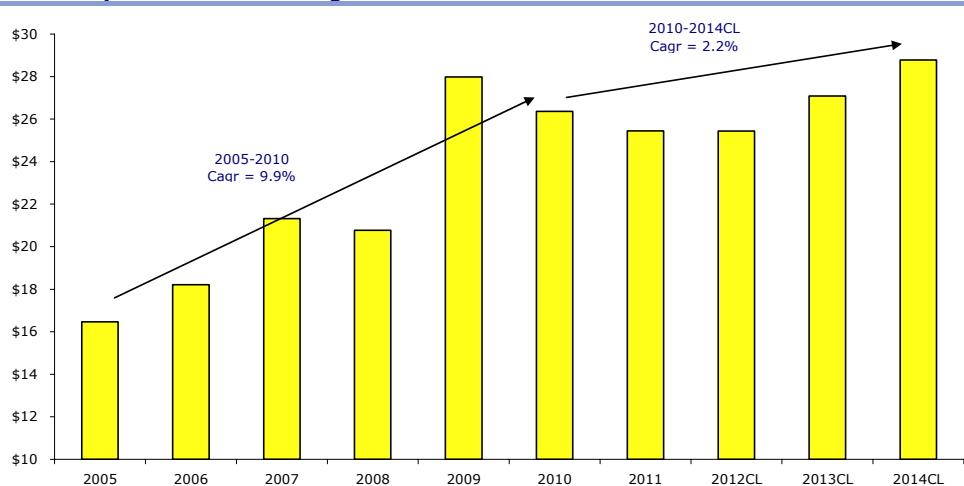
JPMorgan Chase's annual investor conference next Tuesday (28 February) should help better flush out its strategy and address secular and cyclical issues. While JPMorgan has had strong market-share gains, technology, capital, strategic consistency, management continuity, and share-price performance versus peers, on an absolute basis results have been mediocre at best. Below are 10 issues that face the company:

### □ Revenue growth: Can JPMorgan achieve above-trend growth?

JPMorgan's revenue growth strategy is all about taking market share in most major areas. This strategy has worked well in the past four years as weaker competitors pulled back (or no longer exist due to mergers or failures) and JPMorgan made strategic acquisitions that expanded its retail and middle-market footprint in the USA and expanded its investment-banking and trade capabilities globally (especially equities and commodities). Yet, this strategy is not without its risks. First, we believe that the US banking industry faces material revenue headwinds over the next several years due likely to margin compression and choppy loan growth, which is tied to nominal GDP growth. Second, JPMorgan probably has little ability to make any material acquisitions to boost revenue or expand geographies given tougher capital rules and regulations. As certain European-based institutions face greater capital constraints and losses on existing loan portfolios, there is additional opportunity to gain share globally, but JPM faces a very competitive environment, especially if strategic competitors have less capital constraints (lower SIFI charge) or lighter regulations (no Volcker). In short, JPMorgan is probably going to have to go out further on the risk spectrum to grow above-trend revenue in the near term, which increases market, credit and operational risks.

Figure 1

### Revenue per share at JPMorgan Chase since 2005



Source: Company reports, Credit Agricole Securities (USA)

□ **Europe: Are the opportunities worth the risks?** Almost one-third of JPMorgan's capital-markets-related revenue comes from European-based activities, representing 14% of revenue on a consolidated basis. European banks in general have been pulling back from the credit markets (trade finance, syndications) as well certain capital-markets activities (such as investment banking and trading in the USA). This gives JPMorgan a strategic opportunity to gain share with European-based companies.

**JPMorgan's asset exposure to higher-risk European countries is \$27bn gross (\$16bn net)**

**Most of the exposure is from Spain and Italy**

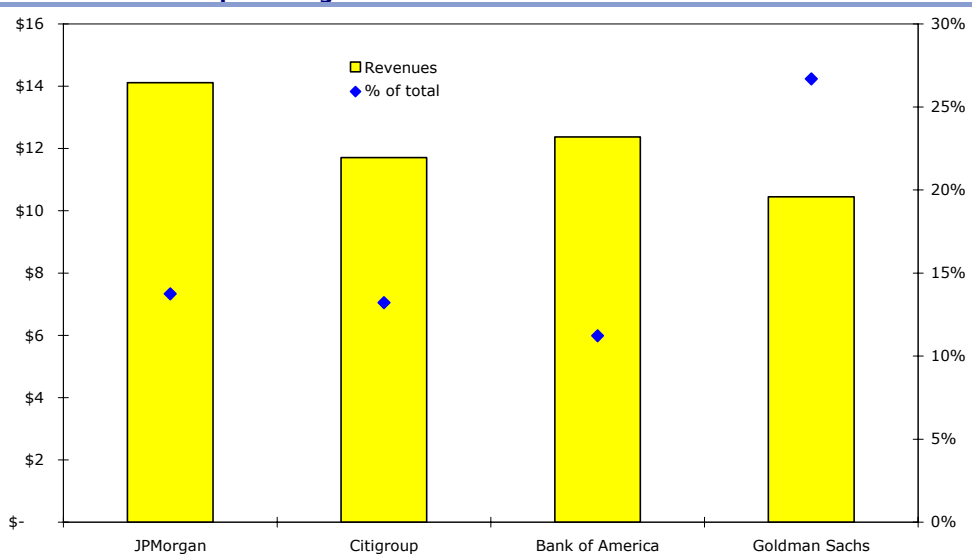
**The company is making a major push into new markets (Africa, China)**

Indeed, JPMorgan's EMEA (Europe, Middle East and Africa) investment-banking revenue was up 14% during 2011, in contrast to the Americas (down 3%) and Asia/Pacific (down 12%). On the one hand, liquidity risk within the Eurozone has diminished for banks (due to actions by the European Central Bank, not by the banks cleaning up their balance sheets and adding capital). Yet, on the other hand, there is sovereign-risk uncertainty and the ultimate fate of the Euro over the long term remains in doubt. Market-share gains and higher exposures (loans to European corporates are up 14% and trade finance credit is up 73% year-over-year) may burden JPMorgan should European economies incur a deep recession.

JPMorgan's asset exposure to higher-risk European countries (Greece, Ireland, Italy, Portugal and Spain) is \$27bn on a gross basis and \$16bn net of collateral and hedging. The gross exposure includes slightly more than half trading (33% to sovereigns and with considerable collateral), 33% loans (of which 72% are corporates), and the rest is available-for-sale securities (89% government guaranteed). By country, most of the exposure is to Spain and Italy (combined \$14bn net of hedging and collateral), of which \$1.4bn and \$1.2bn are to the top-five banks, respectively.

Figure 2

**Revenue from Europe during 2010**



Source: Company reports, Credit Agricole Securities (USA). Note: full-year 2010 data.

- Investment banking: What is the optimal business model?** The most important question is, what will happen to trading revenue in the future? There are positives, such as increased trading by more customers in more products in more countries, partly evidenced by an increase in exchange volumes over the past decade, including equity volume (up 3x), exchange-traded derivatives (up 3x), exchange-traded options (up 4x), and OTC notional outstandings (up 5x). On the other hand, margins off-exchange are getting squeezed and with tougher capital requirements versus competitors, how competitive will JPMorgan's Global Corporate Bank be versus smaller, local competitors? The company is making a major push into new markets (Africa, China) and rapidly expanding its capabilities in many areas where its local capabilities are insufficient (relative to USA, Western Europe and Japan). This increases operational and regulatory

**US consumer-banking revenue has been negatively impacted by regulatory requirements**

**Industry mortgage originations should decline by one-fifth in 2012**

risks. While JPMorgan's risk-management culture has a superior record relative to Citigroup, we think Citi is a good example of the risks associated with maintaining an ambitious global footprint across geographies and businesses.

- **Consumer regulation: What's the next shoe to drop?** Over the last four years, US consumer-banking revenue has been negatively impacted by regulatory requirements concerning overdraft fees, risk-based credit, credit rates and fees, debit card interchange and, most recently, mortgage banking. Yet, these changes were largely driven by legislation (CARD Act and Dodd-Frank Act) or legal settlements. More significantly, the Dodd-Frank Act provided little specific regulations, but instead directed regulatory bureaucrats to perform studies, undertake cost-benefit analyses and develop and implement new regulations with overly broad mandates. Other examples contributing to regulatory uncertainty—only 37 out of 87 studies have been completed and 93 out of the 400 rule-making requirements have been finalized (with deadlines being missed for 164).

Indeed, the Consumer Financial Protection Bureau (CFPB) is just getting started as its administrator (Richard Cordray) was appointed during the January 2012 Congressional recess. The CFPB will have the latitude to determine what type of financial products can be provided to which consumers and at what cost. Also, its budget comes out of the Federal Reserve's interest income from its Treasury holdings (same as the Fed's operating budget), meaning that Congress will be challenged to control it via budgetary tools. To be fair, compliance with fair-lending laws has been a long-time regulatory requirement, and the CFPB appears to be first reviewing the activities of non-bank entities such as payday lenders, mortgage companies and consumer credit bureaus. Nonetheless, potential actions and regulatory limitations set by the CFPB only increase regulatory uncertainty for JPMorgan Chase and the industry as a whole.

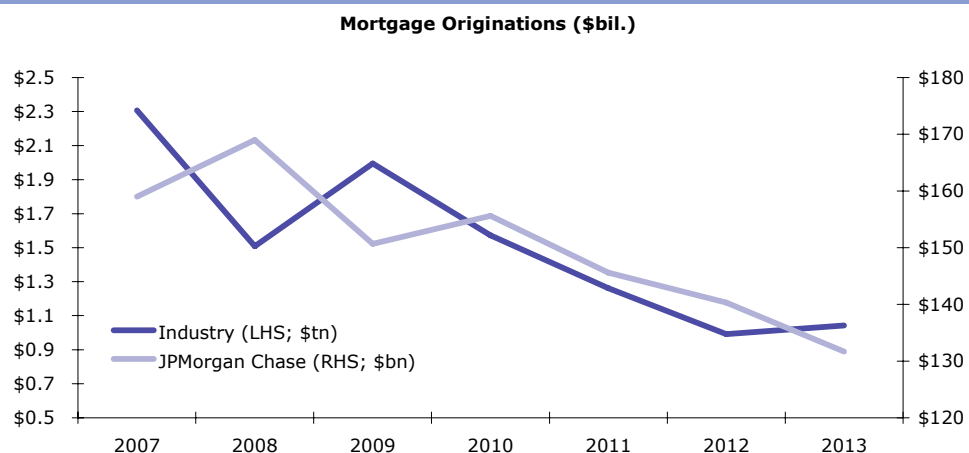
- **Housing: Are we out of the woods?** First, industry mortgage originations should decline by one-fifth in 2012 (source: Mortgage Bankers Association), which could impact JPMorgan's production revenue. Second, core mortgage quality might not be as good as the foreclosure backlog gets cleared following the recently announced global settlement on servicing. Longer term, the mortgage banking business model has been radically changed from its 2002-2006 heyday. Servicing expenses will come down (perhaps reducing mortgage-related expenses by \$2.4bn per year), but costs will still be at a much higher plateau than pre-crisis levels. Moreover, it is unclear what will be the long-term impact on production revenue when long-term rates begin to increase. Ideally, that implies a growing economy and demand for purchase mortgages grows rapidly. On the other hand, refinancings constitute two-thirds of industry originations in 2010 and 2011. These will decline as long as rates stay flat, never mind rate increases. Indeed, the Mortgage Bankers Association has refi's declining by two-thirds in 2013 compared to the 2010 level.

**Mortgage originations have declined substantially since 2007**

**What is the long-term normalized growth rate?**

Figure 3

**Mortgage originations are expected to decline as refinancing demand falls**



Source: Credit Agricole Securities (USA), Mortgage Bankers Association, company reports

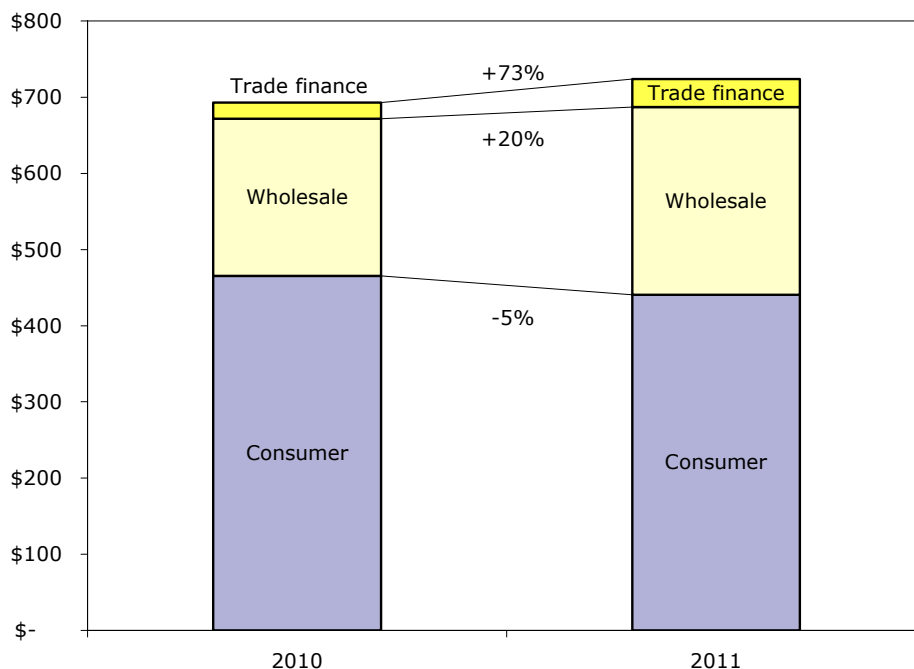
- **Commercial loan growth: Is it real?** JPMorgan's wholesale loans were \$283bn at year-end 2011, up 24% year-over-year, led by higher trade finance (up 73% in the Treasury & securities services (TSS) segment), higher global corporate banking (up 28% in the investment bank), and higher traditional commercial banking (up 58% in the commercial bank). While each of these exposures has a very different revenue and credit-risk profile, it does show that JPMorgan has loan-growth opportunities that help offset the deliberate run-off in consumer portfolios (mortgage, home equity and cards). As we have noted in numerous reports, loan growth is largely tied to nominal GDP and the outlook for the USA this decade is weak. These above-trend levels reflect share gains and in some cases, in the company's opinion, a low base (such as trade finance). Regardless, loan utilization remains near historical levels for the industry and we wonder if JPMorgan and others are taking on more risks than they can chew, especially with overseas credit. What is JPMorgan seeing in syndicated loan growth and underwriting standards (rank = #1), which we estimate contributed to most of the industry's recent loan growth and where terms/pricing have started to come down? JPMorgan has already started to build up its reserves in the investment bank but not in the commercial bank. TSS reserves are a fraction of other segments, reflecting the lower-risk profile for trade finance credit, but we wonder if this is more than offset by higher operational and reputational risks. In any case, if this growth is real, what is the long-term normalized growth rate and should we expect to see a large ramp up in reserves as these loans season over time?

Trade finance increased  
73% in 2011

How long will it take JPM  
to get to its 35% dividend  
payout target?

Figure 4

JPMorgan Chase loan portfolios at year-ends 2010 and 2011



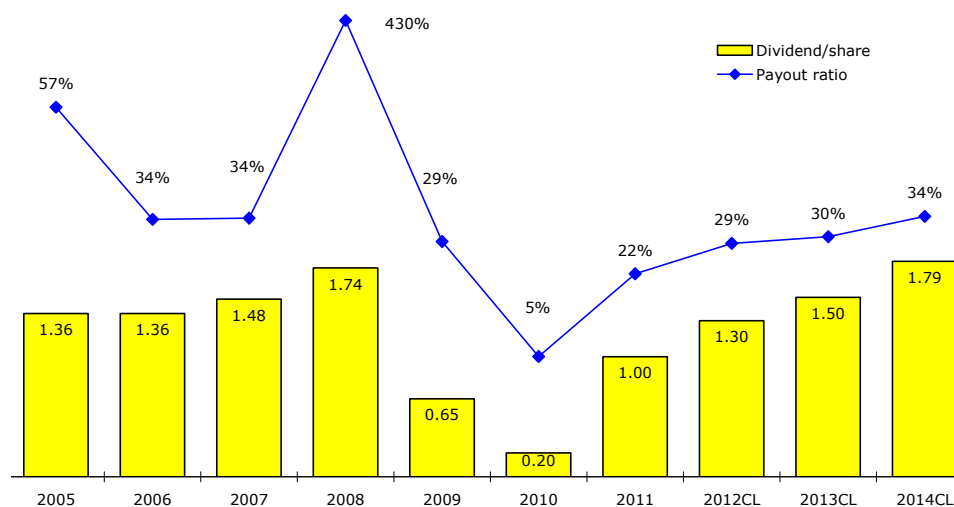
Source: company reports. Note: in \$bn.

**Capital: Who is in charge?** Reflecting the uncertainty in capital requirements as well as the calculations for both Tier 1 common and risk-weighted assets, JPMorgan's capital strategy has been highly volatile over the past year. JPMorgan has been steadfast with its intention to maintain a fortress balance sheet. To that end, its capital ratios are among the highest. JPM continues to carry excess capital and reiterated that it looks to have a 9.5% Tier 1 Basel 3 ratio by year-end 2013 (7% Tier 1 common ratio minimum plus 250bps SIFI buffer charge). However, management now indicates that it may not target a buffer above this buffer (contrary to State Street's comment's last week). The company has telegraphed its intention to increase the dividend again this year, and we expect this announcement to closely follow the release of the regulatory capital stress-test results (expected 15 March or earlier). Over what time period will JPMorgan get to its 35% dividend-payout target?



Figure 5

**JPMorgan Chase dividend and payout ratios since 2005**



Source: Credit Agricole Securities (USA), company reports

**When the day comes, who will be the next CEO?**

**Is the current strategy the correct strategy for the retail bank?**

❑ **Leadership: Who can replace Jamie Dimon?** To be clear, we don't think Jamie Dimon (JPMorgan's CEO/Chair) is going anywhere. All of the company's strategic efforts such as branch expansion and overseas growth are expected to help JPM's bottom line 3-5 years out. That is a testament to JPMorgan's long-term focus (relative to others) and, to us, reflects a management team that is largely set and not likely to change much for several years. A few years ago, there was considerable rotation of management, including changes at CFO, processing, investment banking and asset management. However, the management team has largely been in place since then. Nonetheless, investors need to be mindful of the CEO's abilities and the risks to change when the day comes that he leaves JPMorgan. In short, who is the successor to Jamie Dimon?

❑ **Retail banking: When will the expansion start producing results?** JPMorgan and the US banking industry in general has faced significant macro-economic and regulatory turbulence over the past five years, including the worst recession in 70+ years, historically low rates that depreciate the benefits of having low-cost deposits, higher deposit assessments and more intrusive regulatory oversight, and business-model changes in deposits, cards and mortgage banking. And how does JPMorgan respond? By building more branches and adding more bankers. Indeed, this contrarian approach to retail banking is interesting, especially since the company is deliberately running-off higher-risk portfolios, meaning many of these expansion efforts come at a time of declining revenue. The pace of expansion has declined as management originally targeted 300+ new branches in 2012, but this is now around 175+/- . Still, we wonder about the speed of Chase's investing and whether it is getting the desired results. Specifically, over the past year, Chase has added 4k bankers and sales specialists (up 13%) and 216 net new branches, but fee revenue was up just 2.5% and the unit had negative operating leverage (again). Is this the right strategy? We have been asking this same question for several years in a row, and yet branches and bankers increase rapidly (as do expenses) but revenue does not materialize. How much of the revenue from the commercial bank and asset management can be attributed to the branch, banker and sales specialist expansion?

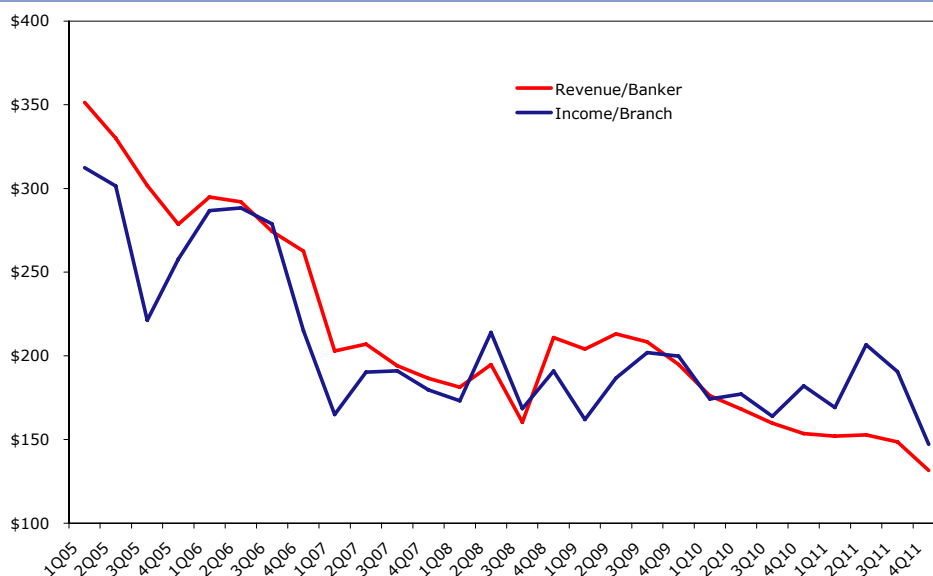


Retail-banking revenue has declined substantially since 2005

JPMorgan will likely have the highest SIFI buffer at 250bps

Figure 6

Retail-banking revenue per banker and net income per branch since 2005



Source: Credit Agricole Securities (USA), company reports. Note: in \$m

□ **Conglomerate discount: Why shouldn't investors just buy the parts?** Over the past five years, we have watched JPMorgan progress from sub-par to good and in many cases at or near best-in-class. Yet, the individual parts are just as compelling. For example, in cards, American Express has a superior brand (more status), unique access to elite clients, customer service (aided by its travel agency), processing network (owns its own) and a higher ROE target than JPMorgan (25% versus 20%). In asset management, T Rowe Price and BlackRock have better operating margins (44% and 36% vs 26%). In investment banking, Goldman Sachs has superior non-US, commodities and certain other operations. In processing (Treasury & Securities Services), State Street has a higher pretax margin (29% vs 24%) and better fee-per-assets under custody trends. In retail, JPMorgan Chase appears to surpass Wells Fargo in cross-selling (based on recent company-disclosed metrics, JPM has 7.4 products per household whereas Wells has 5.9) though core deposits (as percent of total deposits) and revenue-per-branch trends still favor Wells.

In addition to having to be compared against the best company in each of the individual parts (a tough task for any firm), the hurdle at the corporate level is even more challenging. JPMorgan will likely have the highest SIFI buffer (the extra capital cushion for systemically important financial institutions) possible at 250bps, which implies a Tier 1 common minimum ratio of 9.5% after all Basel 3 rules are implemented. This roughly corresponds to 14-15% Tier 1 capital ratio under the original Basel Capital Accord rules. Thus, comparisons versus other companies become that much tougher, especially against non-banks like asset managers.

Figure 7

**Return on equity analysis by segment**

	Allocated Equity	JPM Targets		Historical Peak			2006-2011		CLSA Estimate	
		ROE	Earnings	Prior Peak	Peak Qtr	Earnings	Average	Earnings	2012CL	Earnings
Investment Bank	40.0	17%	6.8	29%	1Q07	11.7	15%	6.0	12%	4.6
Retail Financial Services	26.5	30%	8.0	30%	1Q05	8.0	13%	3.4	14%	3.8
Card Services	16.5	20%	3.3	22%	3Q07	3.6	9%	1.5	20%	3.3
Commercial Banking	9.5	20%	1.9	24%	2Q10	2.2	21%	2.0	24%	2.3
Treasury & Securities Services	9.0	25%	2.3	56%	4Q07	5.0	31%	2.8	17%	1.5
Asset Management	7.0	35%	2.5	53%	4Q07	3.7	32%	2.3	22%	1.6
Private equity	5.0	20%	1.0	5%	2009	0.2	2%	0.1	15%	0.8
Corporate/Other	15.5	3%	0.5	5%	2009	0.8	2%	0.3	7%	1.0
Corporate GW & unalloc capital	45.5									
<i>Total</i>	<i>174.5</i>		<i>26.2</i>			<i>35.3</i>		<i>18.3</i>		<i>18.9</i>
<b>Implied EPS</b>			<b>\$ 6.93</b>			<b>\$ 9.35</b>		<b>\$ 4.84</b>		<b>\$ 5.00</b>
<b>Implied ROE</b>			<b>15%</b>			<b>20%</b>		<b>10%</b>		<b>11%</b>

Source: Credit Agricole Securities (USA), company reports. Note: Allocated equity as of 1 January 2012 per the company; EPS based on estimated 2012 average diluted shares of 3774m.

Figure 8

**JPMorgan Chase summary income statement and select financial ratios**

<b>INCOME STATEMENT (US\$m)</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012CL</b>	<b>2013CL</b>	<b>2014CL</b>
Revenues						
Investment Bank	28,079	26,217	26,274	21,155	23,861	25,469
Retail Financial Services	32,692	31,756	28,181	26,379	25,546	25,223
Card Services	20,304	17,163	17,498	19,246	19,424	20,159
Commercial Banking	5,720	6,040	6,418	6,822	7,296	7,807
Treasury & Securities Services	7,344	7,381	7,702	8,719	9,613	10,486
Asset Management	7,965	8,984	9,543	9,856	10,720	11,659
Corporate	6,452	7,301	4,151	3,770	4,014	4,105
<b>Total revenues</b>	<b>108,556</b>	<b>104,842</b>	<b>99,767</b>	<b>95,948</b>	<b>100,474</b>	<b>104,908</b>
Expenses	52,352	61,196	62,911	57,570	59,998	62,329
Credit Provisions	38,367	16,639	7,574	9,254	9,165	10,402
Pretax operating income	17,837	27,007	29,282	29,125	31,310	32,177
Taxes	6,185	9,637	10,306	10,829	11,609	11,877
<b>Net operating income</b>	<b>11,652</b>	<b>17,370</b>	<b>18,976</b>	<b>18,296</b>	<b>19,701</b>	<b>20,300</b>
Preferred dividends	2,945	1,602	1,392	1,132	1,132	1,132
Other extraordinary/unusual items	-	-	-	-	-	-
<b>Net inc avail for shareholders</b>	<b>8,707</b>	<b>15,768</b>	<b>17,584</b>	<b>17,164</b>	<b>18,569</b>	<b>19,168</b>
<b>EPS from continuing ops</b>	<b>2.24</b>	<b>3.96</b>	<b>4.49</b>	<b>4.55</b>	<b>5.00</b>	<b>5.25</b>
Averaged diluted shares	3,880	3,977	3,920	3,774	3,714	3,650
Dividends per share	0.65	0.20	1.00	1.30	1.50	1.79

**KEY OPERATING METRICS AND RATIOS**

Overhead ratio	48.2%	58.4%	63.1%	60.0%	59.7%	59.4%
Provisions/Loans	5.3%	2.5%	1.1%	1.3%	1.3%	1.5%
Reserves/Loans	5.1%	4.7%	3.8%	3.7%	3.7%	3.6%
Tier 1 Common Ratio	8.8%	9.8%	10.0%	9.5%	10.5%	11.5%
Tier 1 Ratio	11.1%	12.1%	12.3%	11.6%	12.6%	13.6%
Return on average equity	6.0%	9.7%	10.2%	9.5%	10.0%	9.8%
Return on average assets	0.4%	0.8%	0.8%	0.8%	0.8%	0.9%
Payout ratio	29.0%	5.0%	22.3%	28.6%	29.9%	34.2%

Source: Credit Agricole Securities (USA), company reports.

## Appendix 1: stock price charts

Figure 9

### Stock price changes since 1 July 2004

Stock price changes since JPM/ONE merger close			
	7/1/2004	2/21/2012	% Change
JPM	38.17	38.46	0.8%
AXP	51.33	52.85	3.0%
GS	93.65	116.63	24.5%
STT	49.08	40.01	-18.5%
BLK	64.15	194.53	203.2%
TROW	24.97	61.70	147.1%
WFC	28.295	30.96	9.4%
BKX	95.81	45.54	-52.5%
S&P 500	1128.94	1362.21	20.7%
S&P Financial Index	381.54	198.78	-47.9%

Source: FactSet

Figure 10

### Stock price changes since 1 January 2007

Stock price changes over last five years			
	1/1/2007	2/21/2012	% Change
JPM	48.3	38.46	-20.4%
AXP	60.67	52.85	-12.9%
GS	199.35	116.63	-41.5%
STT	67.44	40.01	-40.7%
BLK	151.9	194.53	28.1%
TROW	43.77	61.70	41.0%
WFC	35.56	30.96	-12.9%
BKX	117.52	45.54	-61.2%
S&P 500	1418.3	1362.21	-4.0%
S&P Financial Index	495.31	198.78	-59.9%

Source: FactSet

### Valuation details

We believe the current valuation of JPMorgan Chase mostly reflects its strategic positioning in capital-markets-related activities (about half of the firm) as well as long-term growth potential in the acquired Washington Mutual franchise (cost savings, cross sales, etc), mitigated by ongoing concerns about the US housing market (though improving slowly) and risks in global capital markets in general. We arrive at a target price of \$43, which implies 8.6x our 2013 estimate of \$5.00. This is below the 5-year average of 9.3x, which we believe is warranted given cautious-to-negative outlook on the US traditional banking. This target is based on the simple average of six valuation techniques (PE, price-to-book, discount dividend model, PEG ratio analysis and sum of the parts for both PE and PB).

### Investment risks

Macro downside risk factors include a slowdown in global economic activity, greater-than-expected increases in unemployment and bankruptcies (in the US and abroad), and adverse changes in US and foreign laws and regulations. Company-specific downside risks include higher-than-projected credit losses (esp. in credit cards and home equity but also other consumer areas and commercial lending and trade finance), market and interest-rate risks (which can affect JPMorgan's businesses and portfolios in a variety of ways, especially MSRs and investment securities), and operational risks (primarily with the company's on-going expansion in international processing and trade finance as well as complying with all of the provisions current and expected associated with the Dodd-Frank Act). On the upside, if the USA and other major economies grow faster expected and/or unemployment levels are lower than expected, then JPMorgan's credit quality, revenue and earnings growth will likely be better than projected.

## Companies mentioned

American Express (AXP - US\$52.85 - BUY)  
Bank of America (BAC - US\$8.11 - UNDERPERFORM)  
BlackRock (BLK - US\$194.53 - OUTPERFORM)  
Citigroup (C - US\$33.36 - UNDERPERFORM)  
Goldman Sachs (GS - US\$116.63 - OUTPERFORM)  
HSBC\* (5 - HK\$71.25 - SELL)  
State Street (STT - US\$40.01 - OUTPERFORM)  
T Rowe Price (TROW - US\$61.70 - OUTPERFORM)  
Wells Fargo (WFC - US\$30.96 - OUTPERFORM)

\* Covered by CLSA Asia Pacific Markets

## Analyst certification

The analyst(s) of this report hereby certify that the views expressed in this research report accurately reflect my/our own personal views about the securities and/or the issuers and that no part of my/our compensation was, is, or will be directly or indirectly related to the specific recommendation or views contained in this research report.

## Important disclosures

### Recommendation history - JPMorgan Chase (JPM US)

Date	Rec level*	Closing price	Target	Initiated/ dropped
04 February 2012	O-PF	38.28	43.00	-
05 January 2012	O-PF	34.95	39.00	-
13 September 2011	O-PF	32.42	35.00	-
08 January 2011	O-PF	43.64	52.00	-
13 October 2010	O-PF	40.42	46.00	-
03 September 2010	O-PF	38.16	41.00	-
01 July 2010	O-PF	36.61	43.00	-
15 April 2010	O-PF	47.73	55.00	-
13 March 2010	U-PF	43.15	47.00	-
21 December 2009	U-PF	40.95	45.00	-
14 October 2009	U-PF	45.66	47.00	-
14 July 2009	U-PF	34.71	30.00	-
08 May 2009	U-PF	35.24	28.00	-
06 April 2009	U-PF	29.28	24.00	I

Source: Credit Agricole Securities (USA)

\* Prior to 1 Jan 2012, our rating structure was: BUY = Expected to outperform the local market by >10%; O-PF = Expected to outperform the local market by 0-10%; U-PF = Expected to underperform the local market by 0-10%; SELL = Expected to underperform the local market by >10%.

CLSA (which for the purpose of this disclosure includes subsidiaries of CLSA B.V. and Credit Agricole Securities Asia B.V., Tokyo Branch)/Credit Agricole Securities (USA) Inc ("Credit Agricole Securities (USA)")'s policy is to only publish research that is impartial, independent, clear, fair, and not misleading. Analysts may not receive compensation from the companies they cover.

Regulations or market practice of some jurisdictions/markets prescribe certain disclosures to be made for certain actual, potential or perceived conflicts of interests relating to a research report as below. This research disclosure should be read in conjunction with the research disclaimer as set out at [www.clsa.com/disclaimer.html](http://www.clsa.com/disclaimer.html) and the applicable regulation of the concerned market where the analyst is stationed and hence subject to. This research disclosure is for your information only and does not constitute any

recommendation, representation or warranty. Absence of a discloseable position should not be taken as endorsement on the validity or quality of the research report or recommendation.

Neither analysts nor their household members/associates may have a financial interest in, or be an officer, director or advisory board member of companies covered by the analyst unless disclosed herein. Unless specified otherwise, CLSA/Credit Agricole Securities (USA)'s did not receive investment banking/non-investment banking income from, and did not manage/co-manage public offering for, the listed company during the past 12 months, and it does not expect to receive investment banking relationship from the listed company within the coming three months. Unless mentioned otherwise, CLSA/Credit Agricole Securities (USA) does not own discloseable position, and does not make market, in the securities.

The analysts included herein hereby certify that the views expressed in this research report accurately reflect their own personal views about the securities and/or the issuers and that unless disclosure otherwise, no part of their compensation was, is, or will be directly or indirectly related to the specific recommendation or views contained in this research report or revenue from investment banking revenues. The analyst/s also states/s and confirm/s that he has/have not been placed under any undue influence, intervention or pressure by any person/s in compiling this research report. In addition, the analysts included herein attest that they were not in possession of any material, non-public information regarding the subject company at the time of publication of the report. Save from the disclosure below (if any), the analyst(s) is/are not aware of any material conflict of interest.

CLSA and/or Credit Agricole Securities (USA) Inc receives or has received compensation from **JPMorgan Chase** for non-investment banking services (eg, brokerage services) in the past 12 months. CLSA and/or Credit Agricole Securities (USA) Inc and/or the analysts involved in the preparation of this report have reason to know that an affiliate of Credit Agricole Securities (USA) Inc and/or CLSA received compensation from JPMorgan Chase for non-investment banking products/services in the past 12 months.

Key to CLSA/Credit Agricole Securities investment rankings: BUY: Total return expected to exceed market return AND provide 20% or greater absolute return; O-PF: Total return expected to be greater than market return but less than 20% absolute return; U-PF: Total return expected to be less than market return but expected to provide a positive absolute return; SELL: Total return expected to be less than market return AND to provide a negative absolute return. For relative performance, we benchmark the 12-month total return (including dividends) for the stock against the 12-month forecast return (including dividends) for the local market where the stock is traded. For example, in the case of US stock, the recommendation is relative to the expected return for S&P of 10%. Exceptions may be made depending upon prevailing market condition.

CLSA/Credit Agricole Securities changed the methodology by which it derives its investment rankings on 1 January 2012. The stocks covered in this report are subject to the revised methodology. We have made no changes to the methodologies through which analysts derive price targets - our views on intrinsic values and appropriate price targets are unchanged by this revised methodology. For further details of our new investment ranking methodology, please refer to our website.

Prior to 1 Jan 2012, our investment rankings were: BUY = Expected to outperform the local market by >10%; O-PF = Expected to outperform the

local market by 0-10%; U-PF = Expected to underperform the local market by 0-10%; SELL = Expected to underperform the local market by >10%.

Overall rating distribution for CLSA/Credit Agricole Securities Equity Universe: Buy / Outperform - CLSA: 58%; Credit Agricole Securities (USA): 70%, Underperform / Sell - CLSA: 34%; Credit Agricole Securities (USA): 30%, Restricted - CLSA: 0%; Credit Agricole Securities (USA): 0%. Data as of 31 December 2011. INVESTMENT BANKING CLIENTS as a % of rating category: Buy / Outperform - CLSA: 89%; Credit Agricole Securities (USA): 67%, Underperform / Sell - CLSA: 11%; Credit Agricole Securities (USA): 33%, Restricted - CLSA: 0%; Credit Agricole Securities (USA): 0%. Data for 12-month period ending 31 December 2011. For a history of the recommendations and price targets for companies mentioned in this report, as well as company specific disclosures, please write to: (a) Credit Agricole Securities (USA), Compliance Department, 1301 Avenue of the Americas, 15th Floor, New York, New York 10019-6022; and/or (b) CLSA, Group Compliance, 18/F, One Pacific Place, 88 Queensway, Hong Kong.

© 2012 CLSA Asia-Pacific Markets ("CLSA") and/or Credit Agricole Securities (USA) Inc ("CAS").

This publication/communication is subject to and incorporates the terms and conditions of use set out on the [www.clsa.com](http://www.clsa.com) website. Neither the publication/ communication nor any portion hereof may be reprinted, sold or redistributed without the written consent of CLSA and/or CAS, a broker-dealer registered with the Securities and Exchange Commission of US and an affiliate of CLSA.

CLSA and/or CAS has/have produced this publication/communication for private circulation to professional, institutional and/or wholesale clients only. The information, opinions and estimates herein are not directed at, or intended for distribution to or use by, any person or entity in any jurisdiction where doing so would be contrary to law or regulation or which would subject CLSA and/or CAS to any additional registration or licensing requirement within such jurisdiction. The information and statistical data herein have been obtained from sources we believe to be reliable. Such information has not been independently verified and we make no representation or warranty as to its accuracy, completeness or correctness. Any opinions or estimates herein reflect the judgment of CLSA and/or CAS at the date of this publication/communication and are subject to change at any time without notice. Where any part of the information, opinions or estimates contained herein reflects the views and opinions of a sales person or a non-analyst, such views and opinions may not correspond to the published view of CLSA and/or CAS. This is not a solicitation or any offer to buy or sell. This publication/communication is for information purposes only and does not constitute any recommendation, representation, warranty or guarantee of performance. Any price target given in the report may be projected from 1 or more valuation models and hence any price target may be subject to the inherent risk of the selected model as well as other external risk factors. This is not intended to provide professional, investment or any other type of advice or recommendation and does not take into account the particular investment objectives, financial situation or needs of individual recipients. Before acting on any information in this publication/ communication, you should consider whether it is suitable for your particular circumstances and, if appropriate, seek professional advice, including tax advice. CLSA and/or CAS do/does not accept any responsibility and cannot be held liable for any person's use of or reliance on the information and opinions contained herein. To the extent permitted by applicable securities laws and regulations, CLSA and/or CAS accept(s) no liability whatsoever for any direct or consequential



loss arising from the use of this publication/communication or its contents. Where the publication does not contain rating, the material should not be construed as research but is offered as factual commentary. It is not intended to, nor should it be used to form an investment opinion about the not rated companies.

Subject to any applicable laws and regulations at any given time CLSA, CAS, their respective affiliates or companies or individuals connected with CLSA/CAS may have used the information contained herein before publication and may have positions in, may from time to time purchase or sell or have a material interest in any of the securities mentioned or related securities or may currently or in future have or have had a business or financial relationship with, or may provide or have provided investment banking, capital markets and/or other services to, the entities referred to herein, their advisors and/or any other connected parties. As a result, investors should be aware that CLSA, CAS and/or their respective affiliates or companies or such individuals may have one or more conflicts of interest.

Regulations or market practice of some jurisdictions/markets prescribe certain disclosures to be made for certain actual, potential or perceived conflicts of interests relating to research report. Details of the disclosable interest can be found in certain reports as required by the relevant rules and regulation and the full details are available at [http://www.clsa.com/member/research\\_disclosures/](http://www.clsa.com/member/research_disclosures/). Disclosures therein include the position of the CLSA Group only and do not reflect those of Credit Agricole Corporate & Investment Bank and/or its affiliates. If investors have any difficulty accessing this website, please contact [webadmin@clsa.com](mailto:webadmin@clsa.com) on (852) 2600 8111. If you require disclosure information on previous dates, please contact [compliance\\_hk@clsa.com](mailto:compliance_hk@clsa.com).

This publication/communication is distributed for and on behalf of CLSA Limited (for research compiled by non-US analyst(s)) and /or CAS (for research compiled by US analyst(s)) in Australia by CLSA Australia Pty Ltd; in Hong Kong by CLSA Research Ltd.; in India by CLSA India Ltd. (Address: 8/F, Dalamal House, Nariman Point, Mumbai 400021. Tel No: +91-22-66505050. SEBI Registration No: BSE Capital Market Segment: INB010826432; BSE F&O Segment: INF010826432; NSE Capital Market Segment: INB230826436; NSE F&O Segment: INF230826436); in Indonesia by PT CLSA Indonesia; in Japan by Credit Agricole Securities Asia B.V., Tokyo Branch, a member of the JSDA licensed to use the "CLSA" logo in Japan; in Korea by CLSA Securities Korea Ltd.; in Malaysia by CLSA Securities Malaysia Sdn Bhd; in the Philippines by CLSA Philippines Inc. (a member of Philippine Stock Exchange and Securities Investors Protection Fund); in Thailand by CLSA Securities (Thailand) Limited; and in Taiwan by CLSA Limited, Taipei Branch.

United States of America: Where any section of the research is compiled by US analyst(s), it is distributed by CAS. Where any section is compiled by non-US analyst(s), it is distributed into the United States by CLSA solely to persons who qualify as "Major U.S. Institutional Investors" as defined in Rule 15a-6 under the Securities and Exchange Act of 1934 and who deal with Credit Agricole Corporate & Investment Bank. However, the delivery of this research report to any person in the United States shall not be deemed a recommendation to effect any transactions in the securities discussed herein or an endorsement of any opinion expressed herein. Any recipient of this research in the United States wishing to effect a transaction in any security mentioned herein should do so by contacting CAS.

United Kingdom: Notwithstanding anything to the contrary herein, the following applies where the publication/communication is distributed in and/or



into the United Kingdom. This publication/communication is only for distribution and/or is only directed at persons ("permitted recipients") who are (i) persons falling within Article 19 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2001 (the "FPO") having professional experience in matters relating to investments or high net worth companies, unincorporated associations etc. falling within Article 49 of the FPO, and (ii) where an unregulated collective investment scheme (an "unregulated CIS") is the subject of the publication/communication, also persons of a kind to whom the unregulated CIS may lawfully be promoted by a person authorised under the Financial Services and Markets Act 2000 ("FSMA") by virtue of Section 238(5) of the FSMA. The investments or services to which this publication/communication relates are available only to permitted recipients and persons of any other description should not rely upon it. This publication/communication may have been produced in circumstances such that it is not appropriate to categorise it as impartial in accordance with the FSA Rules.

Singapore: This publication/communication is distributed for and on behalf of CLSA Limited (for research compiled by non-US analyst(s)) and /or CAS (for research compiled by US analyst(s)) in Singapore through CLSA Singapore Pte Ltd solely to persons who qualify as Institutional, Accredited and Expert Investors only, as defined in s.4A(1) of the Securities and Futures Act. Pursuant to Paragraphs 33, 34, 35 and 36 of the Financial Advisers (Amendment) Regulations 2005 with regards to an Accredited Investor, Expert Investor or Overseas Investor, sections 25, 27 and 36 of the Financial Adviser Act shall not apply to CLSA Singapore Pte Ltd. Please contact CLSA Singapore Pte Ltd in connection with queries on the report. MICA (P) 162/12/2011.

The analysts/contributors to this publication/communication may be employed by a Credit Agricole or a CLSA company which is different from the entity that distributes the publication/communication in the respective jurisdictions.

MSCI-sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, disseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of Morgan Stanley Capital International Inc. and Standard & Poor's. GICS is a service mark of MSCI and S&P and has been licensed for use by CLSA Asia-Pacific Markets.

EVA® is a registered trademark of Stern, Stewart & Co. "CL" in charts and tables stands for CAS estimates unless otherwise noted in the source.

## Mike Mayo

mike.mayo@clsa.com  
(1) 212 261 4000

## Chris Spahr

(1) 212 261 4005

24 February 2012

## USA

### Financial services

Reuters JPM.N  
Bloomberg JPM US

Priced on 23 February 2012  
S&P 500 @ 1,357.7

12M hi/lo US\$47.80/27.85

12M price target US\$43.00  
±% potential +12%  
Target set on 4 Feb 12

Shares in issue 3,942.0m  
Free float (est.) 99.4%

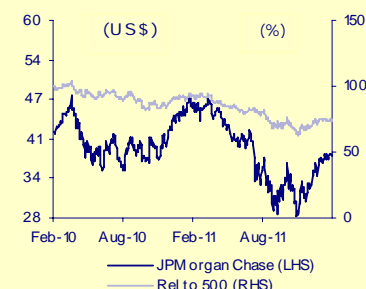
Market cap US\$146,253m

3M average daily volume  
US\$374.5m (US\$374.5m)

Major shareholders  
BlackRock Global Investors 4.2%

### Stock performance (%)

	1M	3M	12M
Absolute	2.2	35.6	(16.3)
Relative	(1.0)	16.1	(19.4)



Source: Bloomberg

www.clsa.com

## Should it get broken up?

JPMorgan has had superior execution vs other global banks (since 2004, stock flat vs down half) as discussed in our 12-page report from earlier this week (*2012 Conference Preview* on 22 Feb 12). Certain peers that have not executed so well should probably get broken up because they are too big to manage by the current executive team. There is little question that any talk of break-ups should begin with Citigroup and Bank of America given not only execution issues but potential benefits to shareholders, in our view. That said, this does not exempt JPMorgan from the discussion on the valuation basis alone. Indeed, at what point does the conglomerate discount become so great that it encourages the company to take action? The pieces of JPMorgan are worth 1/3 more than the current market value (est) based on a sum-of-the-parts analysis. As a result, should JPMorgan sell higher-valued asset management and processing and redeploy the proceeds to share buybacks? On Tuesday, we expect the company to make the case that these and other businesses provide firm-wide synergies, though the ultimate proof is not whether JPM is best in breed vs its global peers (which it is), but whether it is best in class vs non-conglomerates (not the case). The stock seems undervalued, but the question is how and when this value gets realized?

### Sum-of-the-parts valuation is well above the stock price

This is anything but the first time that a conglomerate of any sort trades well below the sum of its parts. JPM stock trades at a 7.2x PE vs 9.5x for a proxy index and a 1.2x price to tangible book vs 1.7x. As a result, the stock should be worth almost 1/3 more based on its component parts based on peers, after assigning weights based on the proportion of 2011 revenues - commercial/retail banking (36% of JPM), investment banking (28%), cards (18%), asset management (10%) and processing (8%). On a best-in-class basis, we use Amex for cards, T.Rowe for asset management, Goldman for investment banking, Wells Fargo for retail and State Street for processing. Both charts are included below. In sum, increasingly higher regulatory and capital requirements for large, global financial institutions place a higher burden on realizing synergies across segments which, combined with a higher-than-typical financial conglomerate discount, should at least bring the question of whether it makes sense to sell some portion of the firm more to the fore.

### Financials

Year to 31 Dec	09A	10A	11CL	12CL	13CL
Operating income (US\$m)	108,556	104,842	99,767	96,002	100,585
Net income (US\$m)	8,707	15,768	17,584	17,160	18,565
EPS (US\$)	2.24	3.96	4.49	4.55	5.00
CL/consensus (31) (EPS%)	-	-	100	99	93
EPS growth (% YoY)	58.2	76.7	13.1	1.4	9.9
PE (x)	17.2	9.7	8.6	8.5	7.7
Dividend yield (%)	1.7	0.5	2.6	3.4	3.9
PB (x)	0.9	0.9	0.8	0.8	0.7
ROE (%)	7.7	10.4	10.8	9.9	10.2

Source: Credit Agricole Securities (USA); FactSet for consensus data. CL = estimate

CLSA HAS MOVED TO A NEW RECOMMENDATION STRUCTURE AS OF 1 JAN 2012. PLEASE SEE IMPORTANT DISCLOSURES AT THE END OF THIS REPORT.

The group of companies that comprise CLSA are affiliates of Credit Agricole Securities (USA) Inc.

For important disclosure information please refer to page 3.

Prepared for - W: scott.goodman@clsa.com

Figure 1

**JPM vs average proxy**

	Weights	PE	Weighted PE	Tang PB	Weighted Tang PB
Commercial & Retail	36%	9.5	3.4	1.4	0.5
Investment Bank	28%	8.4	2.4	0.8	0.2
Card Services	18%	9.2	1.7	2.8	0.5
Asset Management	10%	12.3	1.2	3.1	0.3
Processing	8%	10.1	0.8	2.0	0.2
<b>Proxy</b>			<b>9.5</b>		<b>1.7</b>
<b>JPMorgan</b>			<b>7.2</b>		<b>1.2</b>

Components: Commercial & Retail: BBT, CMA, FITB, KEY, PNC, STI, USB, WFC. Investment Banking: MS, GS. Card Services: COF, AXP. Asset Management: AB, AMP, BLK, BEN, IVZ, JNS, LM, TROW, LPLA, RJF. Processing: STT, NTRS, BK. Prices based on closing price 2/22/12. PE based on 2013 consensus EPS. Tangible PB based on 4Q11 tangible book value. Source: Credit Agricole Securities (USA)

Figure 2

**JPM vs best-in-class proxy**

	Weight	PE	Weighted PE	Tang PB	Weighted Tang PB
WFC	36%	8.5	3.0	1.7	0.6
GS	28%	8.8	2.5	0.9	0.3
AXP	18%	11.3	2.0	4.2	0.8
TROW	10%	16.9	1.7	5.7	0.6
STT	8%	8.9	0.7	1.8	0.1
<b>Proxy</b>			<b>9.9</b>		<b>2.3</b>
<b>JPMorgan</b>			<b>7.2</b>		<b>1.2</b>

Prices based on closing price 2/22/12. PE based on 2013 consensus EPS. Tangible PB based on 4Q11 tangible book value. Source: Credit Agricole Securities (USA)

## Valuation details

We believe the current valuation of JPMorgan Chase mostly reflects its strategic positioning in capital-markets-related activities (about half of the firm) as well as long-term growth potential in the acquired Washington Mutual franchise (cost savings, cross sales, etc), mitigated by ongoing concerns about the US housing market (though improving slowly) and risks in global capital markets in general. We arrive at a target price of \$43, which implies 8.6x our 2013 estimate of \$5.00. This is below the 5-year average of 9.3x, which we believe is warranted given cautious-to-negative outlook on the US traditional banking. This target is based on the simple average of six valuation techniques (PE, price-to-book, discount dividend model, PEG ratio analysis and sum of the parts for both PE and PB). Investment risks

## Investment risks

Macro downside risk factors include a slowdown in global economic activity, greater-than-expected increases in unemployment and bankruptcies (in the US and abroad), and adverse changes in US and foreign laws and regulations. Company-specific downside risks include higher-than-projected credit losses (esp. in credit cards and home equity but also other consumer areas and commercial lending), market and interest-rate risks (which can affect JPMorgan's businesses and portfolios in a variety of ways, esp. MSRs and investment securities), and operational risks (primarily within given the ongoing integration of Bear Stearns and Washington Mutual). On the upside, if the US and other major economies grow faster expected and/or unemployment levels are lower than expected, then JPMorgan's credit quality, revenues and earnings growth will likely be better than projected.

### Companies mentioned:

State Street (STT US - US\$40.86 - O-PF)  
Wells Fargo (WFC US - US\$30.65 - O-PF)  
Goldman Sachs (GS US - US\$115.80 - O-PF)  
T Rowe Price (TROW US - US\$61.49 - O-PF)  
Amex (AXP US - US\$52.67 - BUY)  
Citigroup (C US - US\$32.71 - U-PF)  
Bank of America (BAC US - US\$8.02 - U-PF)

### Analyst certification

The analyst(s) of this report hereby certify that the views expressed in this research report accurately reflect my/our own personal views about the securities and/or the issuers and that no part of my/our compensation was, is, or will be directly or indirectly related to the specific recommendation or views contained in this research report.

### Important disclosures

#### Recommendation history - JPMorgan Chase JPM US

Date	Rec level*	Closing price	Target	Initiated/ dropped
04 February 2012	O-PF	38.28	43.00	-
05 January 2012	O-PF	34.95	39.00	-
13 September 2011	O-PF	32.42	35.00	-
08 January 2011	O-PF	43.64	52.00	-
13 October 2010	O-PF	40.42	46.00	-
03 September 2010	O-PF	38.16	41.00	-
01 July 2010	O-PF	36.61	43.00	-
15 April 2010	O-PF	47.73	55.00	-
13 March 2010	U-PF	43.15	47.00	-
21 December 2009	U-PF	40.95	45.00	-
14 October 2009	U-PF	45.66	47.00	-
14 July 2009	U-PF	34.71	30.00	-
08 May 2009	U-PF	35.24	28.00	-
06 April 2009	U-PF	29.28	24.00	I

Source: Credit Agricole Securities (USA)

\* Prior to 1 Jan 2012, our rating structure was: BUY = Expected to outperform the local market by >10%; O-PF = Expected to outperform the local market by 0-10%; U-PF = Expected to underperform the local market by 0-10%; SELL = Expected to underperform the local market by >10%.

CLSA (which for the purpose of this disclosure includes subsidiaries of CLSA B.V. and Credit Agricole Securities Asia B.V., Tokyo Branch)/Credit Agricole Securities (USA) Inc ("Credit Agricole Securities (USA)")'s policy is to only publish research that is impartial, independent, clear, fair, and not misleading. Analysts may not receive compensation from the companies they cover.

Regulations or market practice of some jurisdictions/markets prescribe certain disclosures to be made for certain actual, potential or perceived conflicts of interests relating to a research report as below. This research disclosure should be read in conjunction with the research disclaimer as set out at [www.clsa.com/disclaimer.html](http://www.clsa.com/disclaimer.html) and the applicable regulation of the concerned market where the analyst is stationed and hence subject to. This research disclosure is for your information only and does not constitute any recommendation, representation or warranty. Absence of a discloseable

position should not be taken as endorsement on the validity or quality of the research report or recommendation.

Neither analysts nor their household members/associates may have a financial interest in, or be an officer, director or advisory board member of companies covered by the analyst unless disclosed herein. Unless specified otherwise, CLSA/Credit Agricole Securities (USA)'s did not receive investment banking/non-investment banking income from, and did not manage/co-manage public offering for, the listed company during the past 12 months, and it does not expect to receive investment banking relationship from the listed company within the coming three months. Unless mentioned otherwise, CLSA/Credit Agricole Securities (USA) does not own discloseable position, and does not make market, in the securities.

The analysts included herein hereby certify that the views expressed in this research report accurately reflect their own personal views about the securities and/or the issuers and that unless disclosure otherwise, no part of their compensation was, is, or will be directly or indirectly related to the specific recommendation or views contained in this research report or revenue from investment banking revenues. The analyst/s also states/s and confirm/s that he has/have not been placed under any undue influence, intervention or pressure by any person/s in compiling this research report. In addition, the analysts included herein attest that they were not in possession of any material, non-public information regarding the subject company at the time of publication of the report. Save from the disclosure below (if any), the analyst(s) is/are not aware of any material conflict of interest.

CLSA and/or Credit Agricole Securities (USA) Inc receives or has received compensation from JPMorgan Chase for non-investment banking services (eg, brokerage services) in the past 12 months.

CLSA and/or Credit Agricole Securities (USA) Inc and/or the analysts involved in the preparation of this report have reason to know that an affiliate of Credit Agricole Securities (USA) Inc and/or CLSA received compensation from JPMorgan Chase for non-investment banking products/services in the past 12 months.

Key to CLSA/Credit Agricole Securities investment rankings: BUY: Total return expected to exceed market return AND provide 20% or greater absolute return; O-PF: Total return expected to be greater than market return but less than 20% absolute return; U-PF: Total return expected to be less than market return but expected to provide a positive absolute return; SELL: Total return expected to be less than market return AND to provide a negative absolute return. For relative performance, we benchmark the 12-month total return (including dividends) for the stock against the 12-month forecast return (including dividends) for the local market where the stock is traded. For example, in the case of US stock, the recommendation is relative to the expected return for S&P of 10%. Exceptions may be made depending upon prevailing market condition.

CLSA/Credit Agricole Securities changed the methodology by which it derives its investment rankings on 1 January 2012. The stocks covered in this report are subject to the revised methodology. We have made no changes to the methodologies through which analysts derive price targets - our views on intrinsic values and appropriate price targets are unchanged by this revised



methodology. For further details of our new investment ranking methodology, please refer to our website.

Prior to 1 Jan 2012, our investment rankings were: BUY = Expected to outperform the local market by >10%; O-PF = Expected to outperform the local market by 0-10%; U-PF = Expected to underperform the local market by 0-10%; SELL = Expected to underperform the local market by >10%.

Overall rating distribution for CLSA/Credit Agricole Securities Equity Universe: Buy / Outperform - CLSA: 58%; Credit Agricole Securities (USA): 70%, Underperform / Sell - CLSA: 34%; Credit Agricole Securities (USA): 30%, Restricted - CLSA: 0%; Credit Agricole Securities (USA): 0%. Data as of 31 December 2011. INVESTMENT BANKING CLIENTS as a % of rating category: Buy / Outperform - CLSA: 89%; Credit Agricole Securities (USA): 67%, Underperform / Sell - CLSA: 11%; Credit Agricole Securities (USA): 33%, Restricted - CLSA: 0%; Credit Agricole Securities (USA): 0%. Data for 12-month period ending 31 December 2011. For a history of the recommendations and price targets for companies mentioned in this report, as well as company specific disclosures, please write to: (a) Credit Agricole Securities (USA), Compliance Department, 1301 Avenue of the Americas, 15th Floor, New York, New York 10019-6022; and/or (b) CLSA, Group Compliance, 18/F, One Pacific Place, 88 Queensway, Hong Kong.

© 2012 CLSA Asia-Pacific Markets ("CLSA") and/or Credit Agricole Securities (USA) Inc ("CAS")

This publication/communication is subject to and incorporates the terms and conditions of use set out on the [www.clsa.com](http://www.clsa.com) website. Neither the publication/ communication nor any portion hereof may be reprinted, sold or redistributed without the written consent of CLSA and/or CAS, a broker-dealer registered with the Securities and Exchange Commission of US and an affiliate of CLSA.

CLSA and/or CAS has/have produced this publication/communication for private circulation to professional, institutional and/or wholesale clients only. The information, opinions and estimates herein are not directed at, or intended for distribution to or use by, any person or entity in any jurisdiction where doing so would be contrary to law or regulation or which would subject CLSA and/or CAS to any additional registration or licensing requirement within such jurisdiction. The information and statistical data herein have been obtained from sources we believe to be reliable. Such information has not been independently verified and we make no representation or warranty as to its accuracy, completeness or correctness. Any opinions or estimates herein reflect the judgment of CLSA and/or CAS at the date of this publication/communication and are subject to change at any time without notice. Where any part of the information, opinions or estimates contained herein reflects the views and opinions of a sales person or a non-analyst, such views and opinions may not correspond to the published view of CLSA and/or CAS. This is not a solicitation or any offer to buy or sell. This publication/communication is for information purposes only and does not constitute any recommendation, representation, warranty or guarantee of performance. Any price target given in the report may be projected from 1 or more valuation models and hence any price target may be subject to the inherent risk of the selected model as well as other external risk factors. This is not intended to provide professional, investment or any other type of

advice or recommendation and does not take into account the particular investment objectives, financial situation or needs of individual recipients. Before acting on any information in this publication/ communication, you should consider whether it is suitable for your particular circumstances and, if appropriate, seek professional advice, including tax advice. CLSA and/or CAS do/does not accept any responsibility and cannot be held liable for any person's use of or reliance on the information and opinions contained herein. To the extent permitted by applicable securities laws and regulations, CLSA and/or CAS accept(s) no liability whatsoever for any direct or consequential loss arising from the use of this publication/communication or its contents. Where the publication does not contain rating, the material should not be construed as research but is offered as factual commentary. It is not intended to, nor should it be used to form an investment opinion about the not rated companies.

Subject to any applicable laws and regulations at any given time CLSA, CAS, their respective affiliates or companies or individuals connected with CLSA/CAS may have used the information contained herein before publication and may have positions in, may from time to time purchase or sell or have a material interest in any of the securities mentioned or related securities or may currently or in future have or have had a business or financial relationship with, or may provide or have provided investment banking, capital markets and/or other services to, the entities referred to herein, their advisors and/or any other connected parties. As a result, investors should be aware that CLSA, CAS and/or their respective affiliates or companies or such individuals may have one or more conflicts of interest.

Regulations or market practice of some jurisdictions/markets prescribe certain disclosures to be made for certain actual, potential or perceived conflicts of interests relating to research report. Details of the disclosable interest can be found in certain reports as required by the relevant rules and regulation and the full details are available at [http://www.clsa.com/member/research\\_disclosures/](http://www.clsa.com/member/research_disclosures/). Disclosures therein include the position of the CLSA Group only and do not reflect those of Credit Agricole Corporate & Investment Bank and/or its affiliates. If investors have any difficulty accessing this website, please contact [webadmin@clsa.com](mailto:webadmin@clsa.com) on (852) 2600 8111. If you require disclosure information on previous dates, please contact [compliance\\_hk@clsa.com](mailto:compliance_hk@clsa.com).

This publication/communication is distributed for and on behalf of CLSA Limited (for research compiled by non-US analyst(s)) and /or CAS (for research compiled by US analyst(s)) in Australia by CLSA Australia Pty Ltd; in Hong Kong by CLSA Research Ltd.; in India by CLSA India Ltd. (Address: 8/F, Dalamal House, Nariman Point, Mumbai 400021. Tel No: +91-22-66505050. SEBI Registration No: BSE Capital Market Segment: INB010826432; BSE F&O Segment: INF010826432; NSE Capital Market Segment: INB230826436; NSE F&O Segment: INF230826436); in Indonesia by PT CLSA Indonesia; in Japan by Credit Agricole Securities Asia B.V., Tokyo Branch, a member of the JSDA licensed to use the "CLSA" logo in Japan; in Korea by CLSA Securities Korea Ltd.; in Malaysia by CLSA Securities Malaysia Sdn Bhd; in the Philippines by CLSA Philippines Inc. (a member of Philippine Stock Exchange and Securities Investors Protection Fund); in Thailand by CLSA Securities (Thailand) Limited; and in Taiwan by CLSA Limited, Taipei Branch.



United States of America: Where any section of the research is compiled by US analyst(s), it is distributed by CAS. Where any section is compiled by non-US analyst(s), it is distributed into the United States by CLSA solely to persons who qualify as "Major U.S. Institutional Investors" as defined in Rule 15a-6 under the Securities and Exchange Act of 1934 and who deal with Credit Agricole Corporate & Investment Bank. However, the delivery of this research report to any person in the United States shall not be deemed a recommendation to effect any transactions in the securities discussed herein or an endorsement of any opinion expressed herein. Any recipient of this research in the United States wishing to effect a transaction in any security mentioned herein should do so by contacting CAS.

United Kingdom: Notwithstanding anything to the contrary herein, the following applies where the publication/communication is distributed in and/or into the United Kingdom. This publication/communication is only for distribution and/or is only directed at persons ("permitted recipients") who are (i) persons falling within Article 19 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2001 (the "FPO") having professional experience in matters relating to investments or high net worth companies, unincorporated associations etc. falling within Article 49 of the FPO, and (ii) where an unregulated collective investment scheme (an "unregulated CIS") is the subject of the publication/communication, also persons of a kind to whom the unregulated CIS may lawfully be promoted by a person authorised under the Financial Services and Markets Act 2000 ("FSMA") by virtue of Section 238(5) of the FSMA. The investments or services to which this publication/communication relates are available only to permitted recipients and persons of any other description should not rely upon it. This publication/communication may have been produced in circumstances such that it is not appropriate to categorise it as impartial in accordance with the FSA Rules.

Singapore: This publication/communication is distributed for and on behalf of CLSA Limited (for research compiled by non-US analyst(s)) and /or CAS (for research compiled by US analyst(s)) in Singapore through CLSA Singapore Pte Ltd solely to persons who qualify as Institutional, Accredited and Expert Investors only, as defined in s.4A(1) of the Securities and Futures Act. Pursuant to Paragraphs 33, 34, 35 and 36 of the Financial Advisers (Amendment) Regulations 2005 with regards to an Accredited Investor, Expert Investor or Overseas Investor, sections 25, 27 and 36 of the Financial Adviser Act shall not apply to CLSA Singapore Pte Ltd. Please contact CLSA Singapore Pte Ltd in connection with queries on the report. MICA (P) 162/12/2011

The analysts/contributors to this publication/communication may be employed by a Credit Agricole or a CLSA company which is different from the entity that distributes the publication/communication in the respective jurisdictions.

MSCI-sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, disseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy,

completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of Morgan Stanley Capital International Inc. and Standard & Poor's. GICS is a service mark of MSCI and S&P and has been licensed for use by CLSA Asia-Pacific Markets.

EVA® is a registered trademark of Stern, Stewart & Co. "CL" in charts and tables stands for CAS estimates unless otherwise noted in the source.